SEPT. BULLETIN 1970
VOL. 1 SAN ANTONIO RADIO CLUB NO.6

President--Ivan Mangold, WA5RNV
Vice President--Floyd Roland, W5JKU
Secretary--M. D. Harris, K5PKX
Treasurer--Frank Box, WA5VFM
Sgt. @ Arms--
Les Eggleston, WA5GOQ

Meets first and third Fridays at 8:00 p.m. at the Civil Defense Headquarters, 115 Auditorium Circle. All who have an INTEREST in amateur radio are cordially invited to attend.

Bulletin Editor, Dean Davis, W5BGE. Published Bi-monthly (hopefully!)

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PREZ SEZ...

by WA5RNV

As a new president will take office Oct. 1, these will be my last comments for the "Prez Sez", and I ask you to give the new president all of the wonderful cooperation and help you gave me. I believe this splendid show of willingness to help where ever necessary to be the highlite of my year as your "fearless leader"??

Giving credit where due, our bi-monthly bulletin, edited by Dean, W5BGE, and typed by XYL, Maybelle, with the help of many others, created more interest among the local amateur fraternity than any other undertaking. My thanks to you, Dean, and your committee. I hope the Club continues the publication. Tnx Roy W5EYB for mimeo work.

According to our treasurer, the Club grew from 21 paid members October '69 to 73 members August '70. Almost every member brought in at least one additional new member--our goal last October. A complete list of members is included in this issue. Our thanks to Lee K5HZR, and Roy W5EYB for compiling it. Space does not permit me to recognice each individual and/or committee who did such yoeman service in getting the job done. My appreciation and thanks to all.

One other item of interest--During the Celia crisis, members and non-members, hams and non-hams came out of the "bushes" to help. Calls offering assistance to keep W5SC "on the air" came from everywhere. Our thanks! And we will let Frank W5QMH -- E. C. tell his story.

New members since last issue include: Craig Diserens, WA5WGH, Alan Wright, John Henderson, William J. B. Ross, Jr. K5LLK, Robert Osborn WA5JDU, Arthur A. Worrell W5HKD, and David L. Ballard K5BSH.

Election of officers for the new year beginning Oct. 1 will be held Friday, September 18, so make plans to be there and voice your vote.

Saturday, December 12, has been the date chosen for the SARC CHRISTMAS PARTY, again at Strange's Party House. MAKE PLANS NOW!!

Thanks for a very rewarding year. Adios, Ivan WA5RNV.

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CELIA - EC's VIEWS

by W5QMH

Wake me when the hurricane's over! Well, why not? That's when all the work started. The digging out; the fixing up; the finding of friends and loved ones; the locating of cherished possessions; the shattered dreams and broken hearts.

When the (bad) word went out that hurricane "Celia" would come ashore around Corpus Christi, a goodly number of local hams sprung into action. W5SC/5 at the Red Cross headquarters went on the air. That station was to provide communications between the Rec Cross in Corpus and in San Antonio. Also the weather bureau asked us to keep both weather bureau's aware of what was going on.

We immediately had a station operating on 75m and another on 40m. The 2m repeater worked fine locally and a rig on a special Weather Bureau frequency was installed to keep the Bureau, Red Cross, Police, Civil Defense, and Highway depts. in contact. "Celia" hit about 5 pm

on Aug. 3. W5SC/5 had been on the air since 8 that morning. That evening and for the next few days many hams manned W5SC/5 and mobiles at the refugee centers at different schools on the south side. On Thursday, Red Cross-Corpus asked Red Cross-San Antonio to send radio operators to help move the health and welfare messages that they expected. A crew of six of us left by 5 pm and we were at the Red Cross in Corpus by 9 pm.

Don Bocko W5ZDU and myself were the first to respond. A 28-foot motor home, complete with all the comforts of home, was volunteered by Lt. Col. Jarrell D. Bairrington. It had everything in it: a CB rig, air conditioning, shower and its own 4kw generator. Lt. Col. Bairrington went along to drive the motor home, but his son, Terry, really ran the "home" part of it. Two other young men went along as lumberjacks--Alan Wright and Leonard Sims, putting up antennas and keeping logs. On Saturday, a real log jam occured with the arrival of Terry W5ETG, Leonard K5IEG, and David WB5AYU. That gave us a direct 2m hook-up with San Antonio. Later in the day, Red Cross' Jeff Coffey WA5BNM, with Brooks Griffith, arrived with more food and drinks. We were able to work 2m, 40m, and 75m simultaneously successfully, and handled about 450 messages into Corpus until Sunday afternoon when we returned home.

Ivan WA5RNV, Club president did a fine job of getting operators and keeping the station here in San Antonio on the air, devoting many hours himself. Among the many who helped were: R. V. Davis W5HBI; A. G. Armstong K5MOF; Jim Rutledge K5UKN; Owen Lancaster K5HLD; Donald Mullins W4TDB/5; Jim Hicks W5EZY; David Petke K1PKQ/5; Roy Albright W5EYB; William Hale WA5OJC; Jerry Connaway W5KLV; Wayne Kelly W5FZH; Albert Trappe WA5IBD; Floyd Roland W5JKU; Joe Gallegher WA5OMB; Jim Weedin WA5QLQ; Frank Box WA5VFM; Michael Beissner WA5-FYX; Roger Chiodo WA5 ONR; Larry Higgins W5QMU; Dean Davis W5BGE; M. D. Harris K5PKX; Dink Stockert WA5LNL; George Munsch W5VPQ; and John Henderson.

As the Emergency Coordinator of Bexar County, and also in behalf of the Red Cross--our sincere appreciation to all who helped in the Celia Emergency. - - - - 73 Frank W5QMH. - - - - - -

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CELIA-FM's VIEWS

by W5ETG

On Saturday August 1, as the Texas VHF FM Society was meeting in Pasadena, Hurricane Celia was born in the Caribbean. Little did the participants know, but a challenge to the hams in the Texas Gulf Coast was in the making.

By Sunday the forecasters were predicting that Celia would hit the coast near Galveston. Many of the FM'ers left the meeting early to get home and secure antennas and make sure the emergency power generators were operative.

When Hurricane Celia changed course and slammed into the Corpus Christi area, she took many people by surprise. The ferocity of the winds was the greatest surprise of all. Sometime during the storm the 2 meter repeater went off the air. The Corpus "machine" is a one site, one antenna and duplexer type system situated in the top floor of a tall building. The repeater is controlled by telephone. When Celia struck she wiped out both the ac power and the telephone lines. The antenna, a commercial gain type, was bent over into a half vertical, half horizontal configuration. Physical access to the repeater was prevented by the lack of power to the only elevator going to the floor on which the repeater was located, the only other route was an outside stairway the serviceability of which was not definitely known.

On Thursday, Jerry K5UDU, and his wife, Irene WA5SRX, with Jim W5-LCN braved the outside stairway to the top of the building and put the repeater back in operation, bent antenna notwithstanding. The telephone lines which controlled the machine were not repaired yet, however the use of the repeater was deemed necessary for use in disaster relief operations.

It would seem repeater operators could benefit from the Corpus experience. The repeater should be permanently connected to a line which automatically receives emergency power in the event of an outage. Phone lines are not a positive method of control, despite

what the FCC believes. Access to the equipment should be available - in any eventuality. The use of a commercial antenna does not guarantee it will survive severe weather. The use of a single antenna and duplexer is a good idea; if the antenna is destroyed, there is only one antenna to replace.

When Leonard K5IEG, Dave WB5AYU, and I reached the outskirts of Corpus Saturday morning we found the repeater working well. We were guided by radio to the Red Cross HQ by Shelby WA5OBF, and Irene WA5SRX. I was rather surprised that FM was not being utilized for any relief operations. It seems that the majority of the local operators were busy on their jobs of repairing their own homes. We checked in with Frank W5QMH, and Don W5ZDU, who were manning W5SC/5 in Corpus at the RC HQ. They told us how difficult it was to pass the Health and Welfare type traffic on 40 or 75 meters due to the quantity of priority and emergency traffic on the established nets.

We set up a 2 meter FM base station with a five element vertical yagi on the roof of the four story building we were in. The base ran 35 watts output to 50 feet of coax. With the assistance of Robert WB5AEI in Alice we oriented the antenna on Dink WA5LNL, in San Antonio. The afternoon and early evening signals were weak but usually readable. After the sun went down the conditions improved greatly and solid contact was established. The path between Corpus and San Antonio has a cyclic fade and at times the signals will take a deep fade but with foreknowledge of this effect, good communications can be accomplished. Dink reported the Corpus repeater was stronger than my direct signal. The repeater antenna, being bent, leads me to believe we had problems with our antenna.

Although we passed less than a dozen pieces of traffic, I believe we did prove the feasibility of using 2 meters for reliable emergency point-to-point traffic handling. Lest I be misunderstood by the HF operators, I am not advocating the exclusive use of 2 meter FM for traffic handling. On the contrary I am suggesting a more flexible operation by including it in a disaster communications network. By its very nature VHF does not lend itself to a "net" type operation on a large scale (outside of an area normally served by a repeater). Much of the disaster relief communication pertaining to Celia, between stations less than 50 miles apart, was on 75 or 40 meters. This type of operation clogged the respective nets and prevented "long haul" traffic from being handled on a timely basis. Before we have another "Celia", it might be a good idea to consider an organized communications net in the stricken area wherein the local area traffic (50 mile radius) is handled on the local repeater(s), the medium range point-to-point traffic (to 200 miles) on the 2 meter simplex channels (i,e. 146.64, 146.58, etc,) and the long haul and major network traffic on 75 and 40 meters. The equipment, operators, and hardware were not available for Celia, now is the time to prepare for the next one.

The theory that the natives of a stricken area are the best ones to provide the required communications is totally false. The indigenous population is, in most cases, busy recovering from their personal disasters. They cannot be expected to become involved in mass relief operations. It therefore falls on the lucky outsiders to provide any service possible. - - - - - 73 Terry W5ETG. - - - - - -

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CELIA - A HAM'S VIEWS

by K5IEG

If you can, feature a once active city in a complete blackout with streets unidentifiable and blocked with fallen trees and all sorts of wreckage. Every house or building you looked at had some sort of damage, perhaps one greater than the one next to it. Radio and TV towers had tumbled to the ground in twisted-up shapes causing devastation to everything in their falling paths. One thing that caught my attention was the damage to the power and telephone lines. It was not uncommon to see every pole in an area broken off. On the alley behind the Red Cross headquarters, secondary service lines of probably ØØØ pulled into, like wrapping cord. Line power transformers had falled so hard that they made a good sized depression in the ground. When power poles go, so do the telephone cables, because of the joint usage of the poles. When this devastation falls upon an area it is necessary to bring in emergency power and communications and that is just what W5SC did. Some one will ask, "What was wrong with the Corpus amateurs?" Well, many of them were doing all

they could, but beings humans too, having lost their homes, autos, radio antennas and equipment, they had problems of their own. If the storm had hit San Antonio, you can be sure that all those C.C. hams would have been here doing all they could for us. It is imperative that all of us become more interested in emergency communications, portable power plants and portable radio equipment--and by all means, learn how to make up messages and how to handle them.

73 Leonard K5IEG.

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CELIA-MARS' VIEWS

by K5KRZ

You all no doubt have read, heard, seen reports and pictures pertaining to the late storm on the lower Gulf coast within the Corpus Christi area. This was one of the few times when a natural disaster disrupted all communications within an area. Many nets, emergency, traffic and others, rushed to the radio to help with the relaying and handling of messages into and out of the area to assist the peoples' needs. The Fourth Army MARS program did a very fine job in this time of need.

Monday morning at 9:00 a.m. a net was opened on the MARS frequency and many members started checking in. Three teams of communications experts along with equipment were dispatched into the Corpus Christi area from Fort Sam Houston. Within a matter of a few hours, material, food, medical and other types of aid were being rushed into the area. Due to the amount of emergency traffic coming through, two additional teams were sent from Fort Hood, and when all were there and in operation, emergency traffic was handled and answered in a matter of a few minutes.

The nets remained in operation for a continuous 170 hours with a total of 187 individual MARS members including many from the S.A. area.

I wish to extend to every MARS member as well as those hams that assisted in any way with the emergency--a pat on the back for a job very well done. 73 Leonard Jones K5KRZ
Zone Coordinator Four
Fourth Army MARS.

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PRE-CELIA:

TEXAS VHF-FM SOCIETY
MEETING - AUG. 2, PASADENA

(Editor's Note: The Texas VHF-FM meeting in Pasadena, 2 Aug. was attended by several S.A. hams including: Terry W5ETG, Ole W5PEK, Larry W5QMU, Roy W5EYB, George W5VPQ, Ella W5TSE and Dean W5BGE. Many items were on the agenda but the comments of Roy Albright W5EYB, West Gulf Division ARRL Director turned out to be very apropos because the following week CELIA CAME! Due to lack of space in this issue only some of his comments will be reported.)

"I telephoned Bob Booth, ARRL legal representative in Washington, D.C. on Friday, 31 July, to determine his prognosis regarding Docket 18803. My interpretation of our conversation is as follows:

At the moment, little work on the comments has been done by the Commission. In his discussions with members of the Commission, Bob made note of the following: (1) Although of great importance to us, the proposed action by FCC is only one of many which occupy the Commission's time and effort. (2) Because of the technical and complex nature of their work-load they necessarily must work in a thorough, painstaking manner. This often breeds slow action. (3) Comments on Docket 18803 comprise a stack of literature over two feet tall! (4) Our comments were so elaborate and technical in nature that more consolidation for analysis will constitute a task of considerable magnitude. (5) Individual members of the Commission were high in their praise for the obvious high quality and objectivity of the comments, particularly for those presented by the League and by the Texas groups."

"Bob stated that because of the Commission's work-load he does not expect a ruling on the repeater proposals within one year, and possibly a year and a half, but stated it should be emphasized this is purely his opinion and not a comment by the Commission. In view of

the above--and in support of my previous recommendations, I should like to propose that the Texas VHF-FM Society undertake as a project, the development of a portable, multi-hop, packaged repeater system, within the framework of existing regulations or special FCC permission, for use during emergencies."

"Further, I would like to suggest as basic development parameters the system be initially planned to connect Brownsville, Raymondville, Corpus Christi, and Victoria with the base station in San Antonio. All stations except San Antonio to be Transportable."

"My reasons for these recommendations are: (1) If such a system can be made to work between these points it will probably work anywhere in Texas. (2) Implementation of the system in the area referred to is desirable because: a. Normal communications systems in this area are frequently susceptible to damage by hurricanes, thus providing a probable opportunity to test the system under actual use. b. Fourth Army Headquarters, based at San Antonio, has the responsibility and the facilities for providing emergency relief to the stricken area; and most important to us: c. Should an emergency arise while the system is being tested, or after development, and before promulgation of the proposed repeater regulations, the data we could furnish the FCC as a result of our work would provide almost irrefutable argument in favor of writing provision for multi-hop repeaters into the proposed regulations."

"Obviously this is not a task for any single repeater group, hence my recommendation that it be undertaken by the Society as a whole."

"Once development has been completed, the equipment could be stored at a central location and rotated smong the several repeater organizations for use, familiarization, and training."

"A number of unique technical problems will arise as a challenge to the development groups, such as the need to provide controlled access, transportable easily erected antenna systems which will withstand hurricane force winds, antenna orientation procedures, etc., none of which are insurmountable by the reservoir of technical knowledge contained within this Society."

"I urge that you give this proposal serious consideration at your earliest opportunity. We owe it to the amateur fraternity as a whole to take the leadership to provide this facility for a tremendous public service, and to furnish the Commission sound reasoning for publication of favorable regulations."

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CELIA-OPERATING CRITIQUE

by K5HZR

Hurricane Celia has come and gone and left a lot of unanswered questions in her wake. After summing up all the net activities engaged in during the emergency, one thing remains outstanding, and that is the need for better planning and more extensive training in message handling. I can sympathize with Frank Gerwitz W5QMH, our Emergency Coordinator. His job is as an administrator. I don't believe we are giving him sufficient support.

Are you an AREC member? Do you have mobile equipment that can be used during an emergency? If yes, does your E.C. know about it? Do you have time to operate at W5SC or the Weather Bureau? What are you doing to train yourself in net operation and handling message traffic? Do you know the frequencies and times for traffic nets in our area? Would you know what to do with an emergency message if you received one? Can you originate a message in proper format and transmit it without humming-and-hawing and repetition?

If you can answer all of the above questions in the affirmative, then there is no need for you to read further. But if you are like most of us, how about checking in to a traffic net more frequently? Originate a message to your Aunt Minnie just for the practice until it comes naturally like walking. Get acquainted with your E.C. (Frank W5QMH - 734-5598). If he doesn't have your CD Form 7 on file, get one from him and fill it out so he will know your capabilities. In present day terminology, let's get involved even if all you can do is keep logs. Let's become amateur radio operators in the meaning of Paragraph 97.1 - a, b, and c of the FCC Rules and not rag chewers

only. -- If what I have written here makes you angry, back off and read it again. If you DO something as a result of reading this, then there is some hope that we will have more true radio amateurs in our midst. 73's Lee K5HZR.

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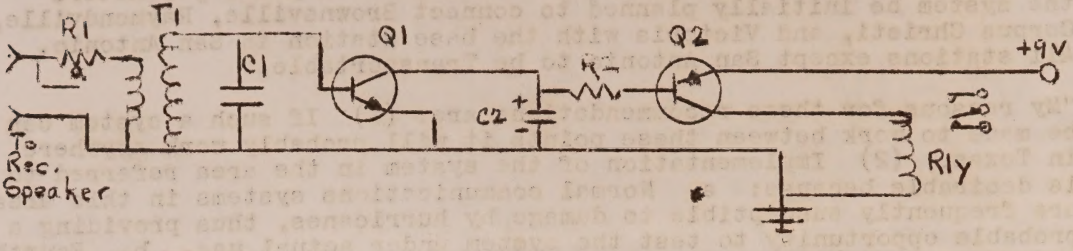
A U D I O T O N E D E C O D E R

by W5ETG



R1 1 or 5K pot.
R2 30K ½w (±20%)

C1 .18ufd for 1200 Hz
(.055 for 2400 Hz)
C2 100ufd for slow reaction
(1 ufd for fast reaction)
T1 12 turns enamel wire
on 88mHy toroid

Q1 any NPN silicon
Q2 any PNP silicon

Rly 12V with coil approximately 250 ohms

1. An on freq, tone will cause Q2 to draw approx. 35 ma. Initial tune up is aided by a milliammeter in the supply line. Stby is less than 1 ma.

2. Adjust R1 so that relay just pulls in with on freq. tone, bandwidth is now approx. 70Hz. A tone 100Hz from center 10dbv greater will not activate the unit.

3. With C2=100ufd the relay will stay pulled in approx. 5 sec. after tone is removed.

4. This decoder is very sensitive to supply voltage changes. I recommend a regulated supply (a simple zener will do). Note: Relay will pull in when voltage is first applied, then drop out.

5. This is not an original idea; I stole it from Leon Vice W5VCE, Houston. 73 Terry W5ETG.

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S P L A T T E R

by W5BGE

An attempt has been made in this issue to cover the activity of the S.A. area hams in the Celia disaster..... A Roster of the SARC will be found on the next page for your info--already out of date because on Sept. 4 we GREW AGAIN! Please add the following names to the Roster: Ellis Nemick W5PXR, 531 Greenmeadow 341-2140, 78213; Everett Buck W5SJP, Rt. 10, Box 232, 694-2414, 78213; Charles J. Duobo WA5SDC, 139 Future, 342-8584, 78213; James Shew WA5WBU, Rt. 1, Box 423, 734-4693 or 635-8933, 78223; and Rolf Jarlen W5HWV, P. O. Box16277, 344-8331, 78216..... A black glass-case was left on front table at the club meeting--see Ivan WA5RNV..... Roy Albright W5EYB, an active SARC member, is up for reelection as West Gulf Division ARRL Director. A petition from a group of S.A. hams has already been approved by ARRL Hqs. We understand that a petition is also being circulated in Houston and by the Tex. UHF-FM Society. We feel that those who have known Roy have felt that he has tried to keep his finger on the pulse of the amateur. All ARRL members will be given an opportunity to vote for a director in October. A petition has also been submitted for Vice Director--Leon Vice W5VCE of Houston, well known in this area..... The SARC received a letter from Henry Binz W5HQR, Corpus CD Communication Officer, thanking W5SC for the fine work done during the Celia disaster..... The Tex. VHF-FM Society meeting in Feb. will be sponsored by the SARO, here in S.A..... Jane WA5JFZ, New Braunfels sent a Buck to help pay postage/cost of paper, saying she has enjoyed the BULLETIN, Tnx, Jane.....K5HZR Super Mailing-Lister.73 Dean W5BGE.

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FOR SALE: Galaxy equipment in top condition, call Chuck K5AIU, 344-3230.....Linear Amplifier, 4-572B, in operating condition $100, call Dean W5BGE, 735-1622.....("For Sale" notices will be used as space permits.).....REMEMBER DATE: Dec. 12, SARC Christmas Dinner Dance

SAN ANTONIO RADIO CLUB
Roster of Members 31 August 1970

LAST NAME	FIRST NAME	CALL	ADDRESS	ZIP	TELEPHONE
ALBRIGHT,	Roy L.	W5EYB	107 Rosemary	78209	822 7269
ARMSTRONG,	Aubrey	K5MOF	7503 Karen Skye Circle	78228	698 2564
BALLARD,	David L.	K5BSH	2125 W. Wildwood	78201	735 2713
BALUSEK,	Robert A.	K5OZF	4807 Dellcrest	78220	648 1775
BOCKO,	Donald G.	W5ZDU	1810 Parnell Ave	78224	923 2109
BOX,	Frank	WA5VFM	1431 W. Hollywood	78201	734 5893
BRAUNSTEIN,	Carl	WA5DQG	434 Linda Drive	78216	822 5876
BRUEMMER,	John	W5LVE	1934 Arroyo Vista	78213	344 5134
BRUEMMER,	Frances	W5KQG	" " "	"	" "
CONNAWAY,	Jerry	W5KLV	110 Rosemont	78228	733 0653
CONNAWAY,	Mary Amy		" "	"	" "
DAVIS,	Doan	W5BGE	1518 Santa Ana	78201	735 1622
DAVIS,	Maybelle		" "	"	" "
DAVIS,	Raymond V	W5HBI	119 Gazel Dr.	78213	342 8023
DECKER,	Howard	WA5ZDF	2142 W. Kings Highway	78201	732 3069
DeLAY,	Dan	W5DUI	2431 W. Mistletoe	78201	734 4739
DISERENS,	Craig	WA5WGH	3130 Renker	78217	655 8255
DeLAY,	Peggy	WA5GZQ	2431 W. Mistletoe	78201	734 4739
DUBOSE,	Walter	K5YFW	10909 Meadowhome	78230	696 3196
DUBOSE,	Suzie	WN5PSU	" "	"	" "
EBEST,	Dallas T.	WA5OVF	311 Haverhill	78228	734 5453
ELIZONDO,	Carlos		725 S. W. 34th	78237	
FOUTCH,	G. C.	WA5YRT	P.O. Box 2692	78206	
GALLAGHER,	Edward	WN5TPK	6827 Martinique	78227	674 5309
GALLAGHER,	Joseph	WA5OMB	120 Elizabeth Rd	78209	826 7533
GERWITZ,	Frank	W5QMH	3842 Crossette	78228	734 5598
HALE,	William C.	W5OJC	5626 Ponderosa	78240	684 1200
HARRIS,	M. D.	K5PKX	513 Nardac	78218	655 0437
HENDERSON,	John		727 Patch	78234	221 5067
HIGGINS,	Larry	W5QMU	2522 Old Hickory Trail	78230	341 2910
INABNET,	H. M.	W5IYA	1754 Donaldson	78228	433 7182
JANK,	Eugene	W5EJT	100 N. Winston Lane	78213	342 2225
JANK,	Ruth	K5OPT	" " "	"	" "
KAY,	Joe	W5RTP	1234 Oblate Drive	78216	826 6760
KIRBY,	Harry	WA5QWR	114 Downing Drive	78209	824 8740
KRAUSE,	Stanley M.	WA5WRM	2937 C Olive Courts	Ft Meade, Md.	20758
LANDERS,	L. Jackson	K5AD	113 E. Huisache	78212	734 4750
LOOS,	George	W5LFG	111 Lark Ave.	78228	
LOPEZ,	Jorge	WN5AAV	122 Channing Dr.	78210	534 4696
MANGOLD,	Ivan	WA5RNV	8702 Post Oak Lane	78209	826 6515
MCERNER	Wm E.	WN5ARM	3622 Anaconda Dr.	78228	734 6395
MUNSCH,	George	W5VPQ	11314 Janet Lee	78230	344 4191
MUNSCH,	Ella	W5TSE	" " "	"	" "
NELSON,	William R.	WA5YHZ	7135 Oaklawn Dr. #79	78229	344 4317
OHMES,	Leonard	K5IEG	310 Milford	78213	344 5372
OLSON,	Dwight B.	W5PEK	Rte 1, Box 86, Von Ormy, Tex.	78073	622 3816
OSBORN,	Robert T.	WA5JDU	2315 W. Kings Highway	78201	733 9474
PERRY,	Larry E.	WB5ARB	142 Vaughn Pl	78201	734 0226
PETKE,	David C.	KIPKQ/5	442 Donya Dr.	78227	673 1957
PHILLIPS,	Claude	W5KJ	444 Hammond	78216	532 9930
RATLIFF,	James	WN5APU	438 Meredith Dr.	78228	735 5795
RISCHER,	Carl	WA5RSE	5727 Ben Casey	78240	684 2922
RODRIQUEZ,	Robert	K5AUW	467 Furr Dr.	78201	735 5504
ROLAND,	Floyd	W5JKU	1810 W. Hildebrand	78201	732 9275
ROSS,	Wm. J.B.Jr.	K5LLK	426 E. Myrtle	78212	
ROSSON,	Robert W.	K5UWS	727 W. Norwood	78212	
RUMMELS,	O. J.	W5BDN	110 Palestine Blvd.	78211	922 9266
RUTLEDGE,	James E.	K5UKN	212 Placid	78228	735 8919
SCHMIDT,	Walter	WA5QPN	715 Barchester Dr.	78216	342 5651
SCHNEIDER,	Otto L.	WA5UYE	Rte 15, Box 196E	78228	695 3391
SETTLES,	Charles	W5UKN	5419 Knoll Krest Dr.	78242	674 6833
SHEAN,	John P.	W5LPO	3302 Litchfield Dr.	78230	696 1879
STEWART,	Lee C. Jr.	W5IPL	113 N. Verde Dr.	78228	684 2539
THOMAS,	Robert P Jr	W5EPB	1003 Nix Prof Bldg	78205	226 8031
THOMPSON,	John A.	WN5BGV	534 Blaze Dr.	78218	655 6532
TRAPPE,	Albert	WA5IBD	522 Sprucewood	78216	344 8082
TURNER,	Terry	W5ETG	131 Dexter Dr.	78226	434 1609
ULREY,	Lee	K5HZR	4215 Dysart Dr.	78220	333 0060
ULREY,	Emma		" " "	"	" "
WAY,	William A.	WA5QHG	215 E. Cheryl Dr.	78228	433 5154
WILLIAMS,	Earl	K5YNS	1201 E. Mulberry #712	78215	824 2879
WORRELL,	Arthur	W5HKD	208 N. Woodlawn	78212	735 5710
WRIGHT,	Alan		712 Rittiman Rd	78209	822 3286
WILLIAMS,	Lawrence		714 Olney Dr.	78209	822 0408

ARRL ARRL ARRL COMMENTS FROM THE DIRECTOR ARRL ARRL ARRL

Occasional reports reaching the Director from persons having a rough time upgrading their license seems to center around the complaint that FCC exams now contain an increasing number of questions on transistors. Amateur radio is changing. We might as well face it. Tubes, in receivers and low power transmitter applications are passe'. If we may paraphrase just a bit, "The time has come, the walrus said, to speak of ---transistors, and such things." So, get with it Pop. In case you haven't saved your old QST's, a complete compilation of the excellent articles "Lets Talk Transistors" which ran from Nov. 1969 thru July this year, is now available from League headquarters for $1.00.

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The ARRL September Frequency Measuring Test will be conducted on Sept 12, (GMT, (Sept 11 for most U. S. areas). Full info on p. 68, August QST. This is an excellent chance to qualify for appointment as Official Observer. And, if you are not sure the 100kc calibrator in your FWM MkII or whatnot, is not quite accurate to the third decimal place, here's an opportunity to determine its degree of accuracy.

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6 Meter hounds note - - - Best bet for band opening indication: OX5AP, Thule, Greenland, is making 5 minute transmissions on the hour, from 2200 to 0200 daily, on 50.15 Mc, and will continue throughout the year. IF you hear him this would be an excellent time to adjust the noise figure of that front end.

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We just received a copy of the Stanford Report "Amateur Radio, an International Resource", by Stanford Research Institute. Although a bit outdated in some of its statistics (1966), this pamphlet is required reading for the amateur interested in expanding his knowledge of 'the big picture' in amateur radio. If you can't afford a buck for your personal copy mine is available on loan.

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Did you know paragraph - - - Did you know that we have a fine Official Bulletin Station right here in San Antonio? Jerry Morgan, W5ABQ, transmits ARRL bulletins on regular schedule. If you have difficulty copying W1AW we suggest tuning to Jerry's broadcasts. This is an excellent way to improve your code speed. Jerry's fist is a real pleasure to copy. The bulletin broadcast schedule follows:

MONDAY	CDST	7:30 p.m.	3798 kc	Speed	18 w.p.m.
MONDAY	"	9:30 "	3750 "	"	Very slow, for beginners.
TUESDAY	"	7:30 "	3798 "	"	18 w.p.m.
TUESDAY	"	9:30 "	3750 "	"	10 w.p.m. (approximate)
TUESDAY	"	9:45 "	3770 "	"	18 w.p.m.

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Are you a member of the San Antonio Radio Club? Your local club needs your support. If you are a radio amateur you need it. The radio club is the backbone of amateur radio. Even tho' it may not be possible to attend meetings regularly you ought to be a member. Recent changes in by-laws now make it easy to join. For more information call one of the club officers, or, better still, come to a meeting. Your dues will insure that you receive the bulletins regularly. Our local club is a real live organization. Former members are requested to call the club president for details on reinstating.

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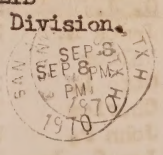
Headquarters advises they still need volunteers for the Intruder Watch program. This group performs the valuable service of gathering data on unauthorized foreign broadcast stations in our amateur bands. This data is compiled and forwarded to the STATE DEPARTMENT for action. Several intruders have been put off the bands as a result of the reports submitted by this group. For complete details write Headquarters, American Radio Relay League, Newington, Conn. 06111. 73,

ROY L. ALBRIGHT W5EYB
Director, West Gulf Division.



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